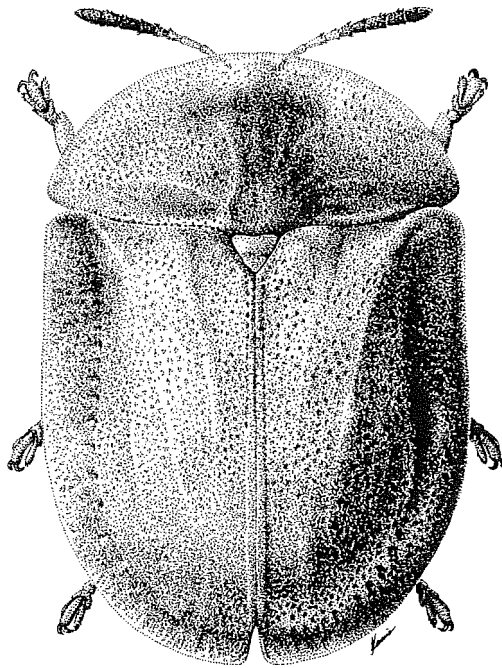


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COVER: The tortoise beetle, *Cassida palaestina* Reiche and Saulcy, depicted in the frontispiece, is an agricultural pest of minor importance in Israel. Data about this and the other Israeli species of Cassidinae (Chrysomelidae) are given in the article by Borowiec et al., which is included in this issue.

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The papers published in this journal are abstracted and indexed in the REVIEW OF AGRICULTURAL ENTOMOLOGY, REVIEW OF MEDICAL AND VETERINARY ENTOMOLOGY and in ENTOMOLOGY ABSTRACTS.

The members of the Entomological Society of Israel congratulate

PROF. K.R. SIMON ASCHER

RECIPIENT OF THE KARL ESCHERICH MEDAL

Awarded by the German Society for General and Applied Entomology
for his groundbreaking work in insect toxicology, and particularly
his involvement in research on chitin synthesis inhibitors
and the use of natural products for insect control,
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OBITUARY

Professor David Rosen
(1936–1997)



IN MEMORIAM

David Rosen, The Vigevani Professor of Agriculture and Professor of Entomology at the Faculty of Agriculture of the Hebrew University of Jerusalem, and world leader in Chalcidoid taxonomy and biological control of insect pests, died on 8 January 1997 after a brave struggle with cancer. David was born in Tel Aviv, Israel in 1936. He pursued his scientific studies at the Hebrew University where he obtained an M.Sc. degree in plant protection *summa cum laude* in 1959 and a Ph.D. in agricultural entomology in 1965. David remained a permanent staff member of the Faculty of Agriculture, rising quickly from the rank of lecturer in 1967 to Full Professor in 1978. In 1990 he became the first appointee of the Vigevani Chair in Agriculture. He chaired the Department of Entomology first as acting chairman (1974) and then as elected chairman, from 1977 to 1980 and from 1992 to 1995, resigning from his second term after discovering his illness. In addition to his duties as chairman, David was very involved in university life. He was active on numerous committees as well as being Director of the Research Center for Integrated Pest Management from 1988 on. He was also deeply involved in teaching, both at the administrative level, where he contributed measurably to the shaping of future teaching curricula in plant protection; and at the personal level where he was known as an excellent teacher and lecturer at home and abroad. His death came only a few

days before he would have been awarded the M. Millikan Prize for Distinction in Teaching in recognition of his excellence.

Throughout his career, David devoted a large part of his time to improving Israeli agriculture. He made a vital contribution to the introduction and improvement of biological and integrated pest control methodology. His awareness of environmental problems culminated in his appointment by the chief scientist for the Ministry of Agriculture, to head a committee to examine the possibilities of reducing the use of poisonous pesticides in agriculture. For this purpose, he assembled a committee comprising leading scientists, extension service, plant protection and inspection service officers together with producers of plant protection products. The committee's report that was published in 1990 after almost two years of deliberations, reflected his leadership, excellent ideas and superb penmanship, and served as an important landmark in plant protection in Israel.

David was an active member of the Entomological Society of Israel since its establishment and served in its committees until he died. He was also a member of the editorial board of the Society Journal: *Israel Journal of Entomology*.

On the international level, David was well known as one of the proponents and leaders in biological pest control. He was an active member of the IOBC and a member of the IOBC/WPRS Council, leaving his mark on many of its decisions. He also served as a member of the FAO/UNEP International Panel of Experts on Integrated Pest Control. His active participation in the International Plant Protection Congresses led the organizing committee to elect him chairman for the next (14th) meeting in 1999, to be held in Israel. His international contributions included editorial duties in numerous professional publications including: Annual Review of Entomology, biological Control, Entomophaga, Integrated pest management reviews, and the Journal of Hymenoptera Research. David also took an important role in the International Congresses of Entomology, in which, for the last 20 years, he organized symposia and participated as an invited speaker in numerous forums. During the 20th Congress, held last summer in Firenze, Italy, he was elected to replace Prof. R. Galun as a member of the organizing committee for the 21st Congress.

He traveled extensively in the Americas, Europe, the CIS, the Far East and Australia and fulfilled many international appointments. These included visiting Professorship of Entomology at the University of California in Berkeley and Riverside, the Universities of Ankara and Adana in Turkey, the University of Maryland in College Park, Texas A&M University in College Station, and the University of Florida in Gainesville.

David has published widely in Hebrew and English. His scientific contributions include 164 refereed articles, and eight books that are listed at the end of this article. The latter include two books that he co-authored with Paul DeBach, and six books that he edited.

David was a well known taxonomist of parasitic Hymenoptera, and was known both as a specialist of Encyrtidae and Aphelinidae, and as a strong proponent of recognizing the importance of taxonomy for biological sciences in general and biological control in particular. His taxonomic contributions culminated in 1979 in the publication of a revisionary book on the genus *Aphytis* co-authored with Prof. Paul DeBach. This work gained the authors the prestigious Filippo Silvestri Foundation prize from the University of Naples.

David was a proud Israeli, believing in the right of all peoples to live freely in their homeland. He will be remembered as speaking out, on many occasions, in favor of separating science from politics. He was a family man, a devoted husband and proud father to his three

children. During the last few years he could often be seen in the company of his wife, Mazal, at many professional meetings. The many students and scientists whom he supervised for both M.Sc. and Ph.D. degrees, as well as his colleagues in Israel and abroad, will always remember David as an exemplary family man, a true friend and a brilliant colleague who was always ready to contribute and help with his wisdom, humor and scientific insight. Together with his family and the scientific community we shall sorely miss him.

Books authored or edited by Prof. D. Rosen

Authored

Rosen, D. and DeBach, P. 1979. The Species of *Aphytis* of the World, Hymenoptera, Aphelinidae. Israel Universities Press, Jerusalem and W. Junk, The Hague, The Netherlands. 801 pp.

DeBach, P. and Rosen, D. 1991. Biological Control by Natural Enemies. Cambridge University Press, Cambridge, UK. 440 pp.

Edited

Rosen, D. (Edit.) 1990. Report of the Steering Committee on Reducing Use of Pesticides in Agriculture. Chief Scientist, Faculty of Agriculture, Rehovot. 148 pp (in Hebrew).

Rosen, D. (Edit.) 1990. Armored Scale Insects: Their Biology, Natural Enemies and Control. World Crop Pests, Elsevier, Amsterdam, Oxford, New York, Tokyo. Vol. A, 384 pp. and Vol. B. 688 pp.

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Rosen, D. and DeBach, P. (Edits.) 1994. Advances in the Study of *Aphytis* (Hymenoptera: Aphelinidae). Intercept Publishers, Andover, Hampshire, UK. 362 pp.

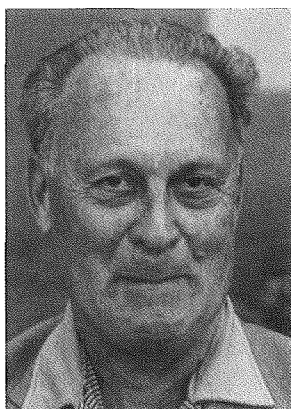
Rosen, D., Tel-Or, E., Hadar, Y. and Chen, Y. (Edit.) 1997. Modern Agriculture and the Environment. Kluwer Press, Amsterdam. xxi + 646 pp.

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OBITUARY

Dr. Paul M. Vermes
(1919–1997)



IN MEMORIAM

Dr. Paul M. Vermes passed away on 24 April 1997 after a prolonged illness. He retired in 1985 from his post as Director of the Division of Pesticides in the Department of Plant Protection and Inspection of the Israel Ministry of Agriculture. Paul Vermes, known to his friends as Paly, was born on 27 September 1919, the youngest son of his parents, in Timisoara (Romania). He completed his primary and high school education in Romania. In September 1937 he came with his family to Palestine. He entered the Kadoorie Agricultural High School where he received his basic agricultural training, graduating in 1940. He then continued his studies in the first graduating class of the Faculty of Agriculture at Rehovot of the Hebrew University of Jerusalem, graduating in 1945 with an M.Sc. Agr. degree. His thesis on 'Fumigation of Seed with Methyl Bromide' was supervised by Professor M. Plaut.

Following his graduation, he was granted a scholarship from the University of Paris, where he received his Ph.D. degree in 1949. His doctoral thesis dealt with: 'Le Mécanisme de l'hérédité d'un caractère quantitatif chez *Drosophila melanogaster* Meig.'

In 1949 Dr. Vermes returned to Israel and began working at the Division of Plant Protection of the Ministry of Agriculture. During his first years at the Division, he worked on pests of

various field crops, including specific crops such as maize, sorghum, and sugar beet. When cotton production was introduced, he concentrated mainly on cotton pests and became a leading expert on the subject. In the 1950s the invasions of the desert locust into Israel led him to work on the control of this pest, and he became a most successful expert in this important field, too. During his work he was nominated to various committees and served with distinction on specific crop management boards.

In 1958 he traveled, on a USOM scholarship, to Arizona for 6 months training and study. During his stay there he also became involved with citrus pests and sent home very thorough reports on these pests, which enabled his colleagues, in turn, to advise and help the citrus growers.

In 1963 Dr. Vermes was transferred as research fellow to the Division of Plant Protection of the Agricultural Research Organization (ARO), The Volcani Center, Bet Dagan. There he worked mainly on the evaluation and screening of pesticides. In 1963 and 1966 he traveled to Iran as an expert and consultant on cotton pests, each time for a few weeks. There he also attended an FAO international training course on locusts (in 1966). In 1969 and 1971 he participated in FAO Conferences and Meetings on Locust Control in Rome, being invited as an expert to the 15th Committee on Locust Control in 1971.

In 1978, after 15 years of research work at the ARO, Dr. Vermes returned to the Department of Plant Protection and Inspection of the Ministry of Agriculture as Director of the Division of Pesticides. This Division is responsible for the registration of agricultural pesticides and their use, including enforcement of the relevant regulations. The Division carries out the testing for residues of the pesticides and establishes, in cooperation with the Ministry of Health, permitted limits of residues in agricultural produce. The experience of Dr. Vermes in extension and research and his broad knowledge of the field made him most suitable for this new post. He established very good cooperation with the pesticide industry, research establishments, the farmers and their organizations and the extension services, as well as with the relevant experts of the Ministry of Health.

Dr. Vermes attended many international congresses and meetings on Plant Protection, on Genetics, and on Biological Control of Pests, which became one of his main fields of expertise and interest.

Paul Vermes served as consultant, advisor and extension expert in various foreign countries: Peru, Argentina, Iran, Ethiopia and Thailand. After his appointment as Director of the Division of Pesticides in 1978, he regularly attended the meetings of the Codex Alimentarius Committee on Pesticide Residues of the WHO and FAO in the Hague, as the Israeli representative.

During his long professional career Dr. Vermes worked also on aerial spraying of pesticides, concentrating on low volume application, and published, together with the late Dr. Shoshana Yathom, a detailed research report on aerial spraying of vegetable crops. He wrote an authoritative chapter on industrial crop pests in the 'Encyclopedia of Agriculture' in Hebrew. Throughout his career he worked, to a great extent, on screening and evaluation of pesticides, biological control of pests, and arthropod surveys in various crops, including natural enemies of the pests.

Dr. Vermes' employment as Director of the Division was extended, due to his expertise, for one year beyond the official retirement age and he retired in 1985.

It is very difficult to describe fully Dr. Vermes' vast knowledge and expertise in a wide variety of professional fields as well as areas outside of agriculture proper. Thanks to his

mastery of many languages (Hebrew, Yiddish, English, French, German, Hungarian and Romanian), together with his unique memory and ability to read rapidly, he was a walking encyclopedia. He was a born and talented extension specialist.

Dr. Paul M. Vermes will be remembered for his readiness always to help others and to share his vast knowledge in any field. The range of subjects he mastered also included economics and banking, as well as Judaism. He will be remembered and missed by all those who knew him, also, *inter alia*, because of his keen sense of humor and his treasure of incisive jokes which he had ready for each occasion.

Dr. Vermes is survived by a brother and a sister. May his memory be blessed.

S. Elhanan
Former Director
Plant Protection and Inspection Services

NOTES FOR AUTHORS

Israel Journal of Entomology, a peer-reviewed journal, publishes original contributions in all areas of entomology. Authors are entirely responsible for statements, whether of fact or opinion.

MANUSCRIPTS

Manuscripts, in standard English only, are considered on the understanding that their contents would not be published elsewhere. If a preliminary announcement relating to the contents of the paper has already been published, this must be stated.

Papers should be concisely written. Consulting the latest issue of the Journal and the "Style Manual for Biological Journals" is highly recommended. Manuscripts should be submitted in triplicate, typed double spaced on one side of a page only, leaving 3-cm margins on both sides, together with a 3.5" or 5.25" IBM-compatible diskette. The name and version of the wordprocessor used should be indicated. For programs other than WordPerfect, Wordstar, MS Word or Einstein, an ASCII version of the file should be included. The title of the paper should be informative, but preferably not exceed twenty words. An abstract provided at the beginning of the paper will indicate the main aspects of the subject, to be followed by 5–7 key words. Words which are to be italicized in print, such as scientific names, should be italicized in the manuscript or underlined with a single solid line. No more than three categories of subheadings are allowed. Footnotes to text should be kept to a minimum.

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Spelling and terminology should be consistent throughout. Scientific names, on first mention, should be followed by the name of the first describer, written in full. When referring to paired organs in morphological descriptions, the singular form should be used. Locality records should preferably be followed by coordinates. Names of localities in Israel will be given as they are transliterated in the "Israel Touring Map" (1:250,000) and "List of Settlements," published by the Survey of Israel, Ministry of Labour. Regions in Israel and nearby areas should follow the "Fauna Palaestina" map (as in Theodor, O. 1975. *Fauna Palaestina, Insecta I: Diptera Pupipara*. The Israel Academy of Sciences and Humanities, Jerusalem).

REFERENCES

1. In the text, reference to the literature should conform to the "name-and-date" system, e.g., Williams (1929); (Bodenheimer, 1938); Jones and Smith (1950). Unpublished references are to be cited as author followed by either (personal communication), (unpublished) or (in press). Only the latter category will appear in the list of references, together with the title of the periodical to which the paper was submitted for publication.
2. When reference is made to taxonomic descriptions, or to quoted passages, the relevant page number(s) should follow the year, e.g., Brown (1939:25).
3. Where three or more authors are concerned, reference is made only to the first, followed by "et al." and the year, e.g., Thomson et al. (1945).
4. The list of references will be given at the end of the article, according to the following examples, *with the titles of all periodicals unabbreviated and italicized*.

Bergman, E.D. 1976. The future of insecticides — a problem of human environment. *Israel Journal of Entomology* 11:5–14.

Taylor, L.R. and Palmer, J.M.P. 1970. Aerial sampling. In: Aphid Technology. Edit. H.F. van Emden. Academic Press, London. pp. 125–138.

TABLES

Tables should be kept to a minimum, typed on separate sheets, and their approximate position should be indicated in the manuscript. The same data should not be given both in tables and graphs.

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TAXONOMY

1. Comprehensive treatments of taxa (genera, families, etc.) will receive higher priority over partial treatments. Partial lists of species or faunistic lists, not accompanied by proper keys or references to such keys, will receive lower priority. Keys should be dichotomic, with two alternatives for each character, and preferably illustrated.
2. Authors must comply with the requirements of the International Code of Zoological Nomenclature and with the published Opinions of the International Commission.
3. The following abbreviations should be adopted: *n. gen.* – new genus; *n. sp.* – new species; *n. comb.* – new combination of names; *n. syn.* – denotes synonymy established for the first time; *n. stat.* – will be used to indicate a new change in rank of a name; *nomen nudum*, *nomen dubium*, *nomen novum* are not abbreviated.
4. In treating the taxonomy of a described taxon, the following form is essential for the beginning of a chapter.

Filippia oleae (Costa, 1832)

(Fig. 1)

Coccus oleae Costa, 1832:21; Green, 1868:42 (biology).

Filippia oleae Fernald, 1903:13 (catalog); Hall, 1943:50 (hosts list).

The full references to the above citations should be given in the REFERENCES section.

5. New taxa must be distinguished from related taxa.
6. In describing new species, the complete data of the type-series, together with the collection(s) in which it is deposited, will be recorded verbatim as follows:

MATERIAL EXAMINED. Holotype ♀, ISRAEL: Jerusalem, 14.v.1956, on *Ficus carica*, G. Levi (BMNH). Paratypes, 20♀, same data as holotype (USNM); Tel Aviv, 3.v.1962, on *Acacia* sp., G. Brown (1♂, 8♀; TAU).

Records of specimens other than type series will be listed at the end of each relevant chapter in a similar manner, but see "SPELLING" above.

7. Authors are required to deposit all type-material in nationally or internationally recognized institutions (not private collections).

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